

IN THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A method for controlling call admission to a communication system comprising:

assigning a unique overbooking factor to each of a plurality of service classes, thereby ensuring no two service classes have an identical overbooking factor;

determining an effective bandwidth for each class based in part on said assigned overbooking factor and one of either a cell delay variation or cell loss ratio;

determining a value of a free bandwidth in said communication system based in part on said determined effective bandwidth for each service class; and

admitting or rejecting said call based on said determined value for said free bandwidth.

2. (Original) The method according to claim 1, wherein said step of determining a free bandwidth further comprises:

determining a maximum bandwidth at a port in the communication system; and

subtracting at least a portion of the effective bandwidth for each class from said maximum bandwidth.

3. (Previously Presented) The method according to claim 2, wherein said step of subtracting further comprises:

dividing the effective bandwidth for each class by its assigned overbooking factor to produce a result; and

subtracting said result from said maximum bandwidth.

4. (Original) The method according to claim 1, wherein said step of admitting or rejecting further comprises:

admitting said call if said free bandwidth is greater than zero.

5. (Original) The method according to claim 4, wherein said step of admitting or rejecting further comprises:

rejecting said call if said free bandwidth is less than zero.

6. (Original) The method according to claim 1, wherein said plurality of service classes includes a constant bit rate class.

7. (Original) The method according to claim 1, wherein said plurality of service classes includes a variable bit rate class.

8. (Original) The method according to claim 7, wherein said variable bit rate class includes a real time variable bit rate class.

9. (Original) The method according to claim 7, wherein said variable bit rate class includes a non-real time variable bit rate class.

10. (Original) The method according to claim 1, wherein said assigned overbooking factor has a default value indicating no overbooking.

11. (Original) The method according to claim 10, wherein said default value is 1.

12. (Original) The method according to claim 1, wherein said communication system is an ATM network.

13. (Original) The method according to claim 1, wherein said communication system is an IP network.

14. (Withdrawn) A method for performing bookkeeping in a communication system when a new connection setup is requested comprising:

calculating an effective bandwidth of the new connection to meet a first predetermined criteria;

calculating a variance for a traffic load of the new connection;

calculating a required bandwidth for all calls in the system to meet the first predetermined criteria based in part on said effective bandwidth and said variance of the new connection;

calculating an effective bandwidth of the new connection to meet a second predetermined criteria;

calculating a required bandwidth for all calls in the system to meet the second predetermined criteria;

calculating a required system bandwidth based on a maximum value for said required bandwidth for all calls in the system to meet the first predetermined criteria and said required bandwidth for all calls in the system to meet the second predetermined criteria;

comparing said required system bandwidth to a maximum bandwidth of said system; and

admitting or rejecting said call based on said comparison.

15. (Withdrawn) The method according to claim 14, further comprising:

updating state variables of the system if said call is admitted.

16. (Withdrawn) The method according to claim 14, wherein said step of admitting or rejecting further comprises:

admitting said call if said required system bandwidth is less than said maximum bandwidth.

17. (Withdrawn) The method according to claim 16, wherein said step of admitting or rejecting further comprises:

rejecting said call if said required system bandwidth is greater than said maximum bandwidth.

18. (Withdrawn) The method according to claim 14, wherein said first predetermined criteria is a cell loss ratio.

19. (Withdrawn) The method according to claim 18, wherein said second predetermined criteria is a cell delay variation.

20. (Withdrawn) The method according to claim 14, wherein said step of calculating an effective bandwidth of the new connection to meet a second predetermined criteria further comprises:

calculating an effective bandwidth of all calls in the system to meet the second predetermined criteria.

21. (Withdrawn) The method according to claim 20, further comprising:

updating state variables of the system if said call is admitted.

22. (Withdrawn) The method according to claim 20, wherein said step of admitting or rejecting further comprises:

admitting said call if said required system bandwidth is less than said maximum bandwidth.

23. (Withdrawn) The method according to claim 22, wherein said step of admitting or rejecting further comprises:

rejecting said call if said required system bandwidth is greater than said maximum bandwidth.

24. (Withdrawn) The method according to claim 20, wherein said first predetermined criteria is a cell loss ratio.

25. (Withdrawn) The method according to claim 24, wherein said second predetermined criteria is a cell delay variation.

26. (Withdrawn) The method according to claim 14, wherein said communication system is a wireless communication system.

27. (Withdrawn) A method for performing bookkeeping in a communication system when an existing call requests to be released from the system comprising:

calculating an effective bandwidth of the call requested to be released that satisfies a first predetermined criteria;

calculating a variance for a traffic load of the call requested to be released;

calculating a required bandwidth for all remaining calls in the system that satisfies the first predetermined criteria;

calculating an effective bandwidth of the call requesting to be released and all remaining calls in the system that satisfies a second predetermined criteria;

calculating a required bandwidth for all remaining calls in the system that satisfies the second predetermined criteria;

allocating a required system bandwidth based on a maximum value for said required bandwidth for all remaining calls in the system that satisfies the

first predetermined criteria and said required bandwidth for all remaining calls in the system that satisfies the second predetermined criteria; and
releasing the call requesting to be released.

28. (Withdrawn) The method according to claim 27, wherein said step of calculating a variance further comprises:

updating state variables of the system based on said call requesting to be released.

29. (Withdrawn) The method according to claim 27, wherein said first predetermined criteria is a cell loss ratio.

30. (Withdrawn) The method according to claim 29, wherein said second predetermined criteria is a cell delay variation.

31. (Withdrawn) The method according to claim 27, wherein said communication system is an ATM network.

32. (Withdrawn) The method according to claim 27, wherein said communication system is an IP network.

33. (Withdrawn) A method for performing bookkeeping in a communication system when an existing call requests to be released from the system comprising:

determining an effective bandwidth that satisfies a first predetermined criteria for the call requesting to be released;

calculating a variance for a traffic load of the call requesting to be released for said first predetermined criteria;

calculating an effective bandwidth of the call requesting to be released that satisfies a second predetermined criteria;

calculating a variance for a traffic load of the call requesting to be released for said second predetermined criteria;

calculating a required bandwidth of all remaining calls in the system that satisfies the first predetermined criteria;

calculating an effective bandwidth of all remaining calls in the system that satisfies the second predetermined criteria;

allocating a required system bandwidth based on a maximum value for said required bandwidth for all remaining calls in the system that satisfies the first predetermined criteria and said required bandwidth for all remaining calls in the system that satisfies the second predetermined criteria; and

releasing the call requesting to be released.

34. (Withdrawn) The method according to claim 33, wherein said step of calculating a variance for a traffic load of the call requested to be released for said second predetermined criteria further comprises:

updating state variables of the system based on said call requesting to be released.

35. (Withdrawn) The method according to claim 33, wherein said first predetermined criteria is a cell loss ratio.

36. (Withdrawn) The method according to claim 35, wherein said second predetermined criteria is a cell delay variation.

37. (Withdrawn) The method according to claim 33, wherein said communication system is an ATM network.

38. (Withdrawn) The method according to claim 33, wherein said communication system is an IP network.

39. (Currently Amended) An access terminal for performing call admission control for a communications system, comprising:

a multiplexer/demultiplexer unit; and

a programmed processor, coupled to said multiplexer/demultiplexer unit, operable to:

assign a unique overbooking factor to each of a plurality of service classes, thereby ensuring no two service classes have an identical overbooking factor;

determine an effective bandwidth for each class based in part on said assigned overbooking factor and one of either a cell delay variation or cell loss;

determine a value of a free bandwidth in said communication system based in part on said determined effective bandwidth for each service class; and

admit or reject said call based on said determined value for said free bandwidth.

40. (Previously Presented) The access terminal according to claim 39, wherein said processor is operable to:

determine a maximum bandwidth at a port in the communication system; and

subtract at least a portion of the effective bandwidth for each class from said maximum bandwidth.

41. (Previously Presented) The access terminal according to claim 40, wherein said processor is operable to:

divide the effective bandwidth for each class by its assigned overbooking factor to produce a result; and

subtract said result from said maximum bandwidth.

42. (Previously Presented) The access terminal according to claim 39, wherein said processor is operable to:

admit said call if said free bandwidth is greater than zero.

43. (Previously Presented) The access terminal according to claim 42, wherein said processor is operable to:

reject said call if said free bandwidth is less than zero.

44. (Original) The access terminal according to claim 39, wherein said plurality of service classes includes a constant bit rate class.

45. (Original) The access terminal according to claim 39, wherein said plurality of service classes includes a variable bit rate class.

46. (Original) The access terminal according to claim 45, wherein said variable bit rate class includes a real time variable bit rate class.

47. (Original) The access terminal according to claim 45, wherein said variable bit rate class includes a non-real time variable bit rate class.

48. (Original) The access terminal according to claim 39, wherein said assigned overbooking factor has a default value indicating no overbooking.

49. (Original) The access terminal according to claim 48, wherein said default value is 1.

50. (Original) The access terminal according to claim 39, wherein said communication system is an ATM network.

51. (Original) The access terminal according to claim 39, wherein said communication system is an IP network.

52. (Original) The access terminal according to claim 39, wherein said access terminal is daisy chained to at least one other access terminal, each of said access terminals performing said method for controlling call admission independently of the other.